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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/736,077
Filing Date: December 15, 2003
Appellant(s): PINTSOV ET AL.

Ronald Reichman (Reg. # 26,796)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 24 July 2009 ("Appeal Brief") appealing from the

Office action mailed 7 November 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

In view of the Terminal Disclaimer filed 23 January 2009, the double patenting rejection

to application 10/719,050, now patent 7,475,041, is withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in Appendix VII to the brief is correct.

(8) Evidence Relied Upon

5,805,767	Bradford	9-1998
6,344,906	Gatto	2-2002
2003/0101148	Montgomery	5-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112 2nd Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the Appellant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which Appellant regards as

the invention.

The word "uniqueness" in step g of claim 1 is considered indefinite. Printed

material can be unique in multiple ways, such as: format, data, color, or position. As

there is no indication what makes an indicia unique in the claim or specification, one of ordinary skill in the art would not understand what kind of determination is needed in this step. This limitation has been interpreted by the Examiner to be a comparison between the filtered and unfiltered image when applying the prior art.

In step f, claim 1 recites, "scanning said indicia." There is no recitation of printing the indicia or it being on a medium where it can be scanned from. Therefore, one of ordinary skill would not understand what has to be performed in order to infringe this claim. For purposes of prior art, scanning in this instance, has been interpreted as going through the data or browsing.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 and 7-11 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Based on Supreme Court precedent[1] and recent Federal Circuit decisions, a §101 patent eligible process must (1) be tied to a particular machine (or apparatus), or (2) transform a particular article to a different state or thing. See *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008) (en banc) and *In re Comiskey*, 554 F.3d 967, 89 USPQ2d 1655 (Fed. Cir. 2009). This is the Machine-or-Transformation Test ("M-T Test").

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[1] See also *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

To meet prong (1), the method step should positively recite machine to which it is tied. Alternatively or to meet prong (2), the method step should positively recite the material that is being changed to a different state or positively recite the subject matter that is being transformed. For example, a method claim that would *not* qualify as a patent eligible process because it fails both prongs of the M-T Test would be a claim that recites purely mental steps.

In this particular case, the process claims fail prong (1) because the methods steps of "scanning said printed material; applying a predetermined set of algorithms for computing characterizing information; determining estimates of robustness for each algorithm in said predetermined set of algorithms; selecting, as a function of said estimates, a combination of descriptors generated by a corresponding combination of said algorithms as said characterizing information; including said characterizing information into a secure indicia; scanning said indicia and said printed block; and determining uniqueness of said indicia using information obtained from step f' are not tied to a specific machine since the methods steps are not recited as being performed on any device and therefore performance by hand reads on this claim. Additionally, scanning the printed material could simply be a human looking over it, applying a set of algorithms could be a sorting scheme performed by a human, determining estimates of robustness could be the sorter's opinion of how well the sorting was performed, selecting the descriptors could be labeling each section sorted into with a sticky note specifying the confidence in that sort being correct, including the information in a secure indicia could be applying a stamp unique to the sorter, and scanning the indicia and the printed block could be a quality review of the sort, determining the uniqueness of the indicia could be looking at the stamp to verify that it belongs to an active sorter. Finally, the Examiner notes that the claims fail

prong (2) because the method steps do not transform the underlying subject matter to a different

state or thing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 as best understood is rejected under 35 U.S.C. §102(b) as being anticipated by

Bradford (US 5,805,747).

As to claim 1, Bradford shows:

A method for generating characterizing information including a plurality of descriptors

for a selected block of printed material, said method comprising the steps of:

a) scanning (by "Optical Scanning Unit," 102) said printed material **101**;

b) applying a predetermined set of algorithms ("string matching algorithms," C 13, LL

24-27) for computing characterizing information ("positional data," C13, LL 22-24);

c) determining estimates of robustness for each algorithm in said predetermined set of

algorithms ("confidence indicators," C9, LL 44-55);

d) selecting, as a function of said estimates, a combination of descriptors generated by a

corresponding combination of said algorithms as said characterizing information ("optimum

alignment," C13, LL 24-27);

e) including said characterizing information into a secure indicia ("stored into memory

114," Id.);

f) scanning said indicia and said printed block ("character-by-character," C9, LL 44-55);

and

g) determining uniqueness of said indicia using information obtained from step f

(resulting in "output indicators," Id.) .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 2-5, 10, and 11, as under stood by the Examiner, are rejected under 35 U.S.C.

§103(a) as being unpatentable over Bradford in view of Gatto et al. (US 6,344,906) ("Gatto").

Bradford shows all of the elements of claim 1 and further shows the comparing of

original descriptors, from the pristine image, to those measured by different algorithms (Figure

10) (Figures 7A-1 thru 9B-3 show a plurality of sets of descriptors from different algorithms).

Bradford does not show the use of filters to operate on the scanned images.

However, Gatto shows the use of a plurality of filters during the scanning process (Figure

8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to have modified the teachings of Bradford to add the filtering of Gatto in order to

produce images that can be operated on by the algorithms more easily.

Claims 7-9, 12-16, and 18-20, as under stood by the Examiner, are rejected under 35 U.S.C. §103(a) as being unpatentable over Bradford and Gatto as applied to claims 2-6, 10, and 11 above, and further in view of Montgomery et al. (US 2003/0101148) ("Montgomery").

Bradford and Gatto disclose as discussed above, but do not expressly show that the object is a mail piece and the block of printed material represents an address. Nor do they show the use of an encrypted mail indicium.

However, Montgomery shows the use of OCR (Paragraph 0140) on a mail piece **200** with a label containing an address. The mail piece further contains and encrypted indicium (Figure 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the teachings of Bradford to process mail as shown by Montgomery, in order to provide for higher reliability in mail processing.

(10) Response to Argument

35 USC § 112 2nd Paragraph

Appellants argue:

"The word "unique" in claim 1 has its normal dictionary definition, i.e., one of a kind. Thus in step g of claim 1 the word uniqueness means how does the indicium differ from the information obtained from step f." (Appeal Brief, Pages 25-26, Paragraph spanning).

Examiner's response:

Appellant has relied upon a "normal dictionary definition" for the word "unique." Appellant has not provided any source for this "normal dictionary definition." The Examiner has reviewed the file wrapper in its entirety and *cannot* find this definition in the record. As the definition was not presented prior to the filing of the Notice of Appeal, the Examiner concludes that this definition constitutes new evidence. MPEP § 1205 (c)(2) states "[a] brief shall not include any new or non-admitted amendment, or any new or non-admitted affidavit or other evidence. Therefore, Applicants' definition, not being of record prior to the Notice of Appeal cannot be properly relied upon in this appeal. To further support the Examiner's position, the Examiner further finds that the Evidence Appendix (*i.e.* "Appendix IX") is empty. Therefore, Appellants have not referenced a source for the definition provided.

The Examiner also notes that the term that is the subject of the rejection under 112 2nd paragraph is "uniqueness" not the term "unique."

In claim 1, the term "uniqueness" is indefinite because–to one of ordinary skill in this art–the metes and bounds of the term can not be reasonably determined. First, the Examiner has

carefully reviewed the original specification and can not locate, let alone ascertain, a

lexicographic definition for this definition. Second, the Examiner has again reviewed all

documents of record in conjunction with MPEP §2141.03. Moreover, the only definition pointed

to by Appellants has no factual source and was not made of record prior to the Notice of Appeal.

Based upon the review in conjunction with MPEP § 2141.03, the review of the original

specification, and the failure of Appellants to provide a factual source prior to the closing of

prosecution, it is the Examiner's position that the term "uniqueness" (as used in the context of

this particular claim) is not known to those of ordinary skill in this art.

Additionally, Appellants' interpretation that "the word uniqueness means how does the

indicium differ from the information obtained from step f" based on the definition provided is

not supported. One of ordinary skill in the art, being given the definition of "one of a kind" for

the term unique would not arrive at the stated meaning for uniqueness. Instead, they would

conclude that "uniqueness" corresponds to how close the two pieces are to being one of a kind.

This would likely be some rating system to establish how much different the two items are. High

uniqueness would indicate that the items are not similar where low uniqueness would indicate

the two items are virtually the same. However, the Examiner reiterates that the definition "one

of a kind" is *not* of record and cannot be properly relied on.

Appellants argue:

"The Examiner is of the opinion that there is no recitation in claim 1 of printing the

indicia or it being on a medium where it can be scanned from. Step a of claim 1 scans printed

material, steps d and e of Claim 1 indicate that the indicia is a component of the printed material"

(Appeal Brief, Page 26, Paragraph 1).

Examiner's response:

Scanning, as understood in the art, is the process of creating an electronic image (*i.e.*

saved as a file) from a printed (hard-copy) document (Bradford, C 6, LL 36-60). Step a) of claim

1 recites "scanning said printed material." The "printed material" is not correlated to an indicia

in this step or any other. Step d) of claim 1 recites "selecting, as a function of said estimates, a

combination of descriptors generated by a corresponding combination of said algorithms as said

characterizing information." The "characterizing information" is "generated by a corresponding

combination of said algorithms" and was not taken from the "printed material." Instead the

scanned digital image was analyzed and the result of the analysis is stored as the characterizing

information. Step e of claim 1, recites "including said characterization information into a secure

indicia." As the characterization information is included in the indicia, and that characterization

information was generated from algorithms applied to the scanned image of the printed material,

the printed material cannot be the indicia. Furthermore, including information into the indicia

does not recite that the indicia is printed. It would be equally proper to interpret that the data is

stored as part of the indicia data on an electronic device.

Because there is no requirement that the indicia be printed, the actions taken in "scanning

said indicia," as recited in step f) would not be understood by one of ordinary skill in the art.

35 USC § 101

Appellants argue:

"The claimed invention provides a block of printed text which will be able to distinguish the selected block of text from other such blocks. It provides an image-based characterization of printed material which can be incorporated into an indicia. The claimed invention utilizes an algorithm and includes scanning, filtering and printing steps.

Thus statutory subject matter is claimed" (Appeal Brief, Page 26, Paragraphs 3 & 4).

Examiner's response:

The Examiner notes that Appellants have not alleged that there is a transformation present in their method.

The Examiner also notes that Appellants have not alleged that there is any particular machine necessarily present in their method.

The use of an algorithm and performance of steps is not sufficient to establish that a method is patentable under 35 USC § 101.

The Examiner also notes that Appellants state "an image-based characterization of printed material which *can* be incorporated into an indicia" [emphasis added]. Therefore, it appears that the characterization of printed material does not have to be incorporated into an indicia.

35 USC § 102(b)

Appellants argue:

"Bradford does not disclose or anticipate steps B, C, D, E, F, and G of claim 1 as amended" (Appeal Brief, Page 27, Paragraph 4).

Examiner's response:

The claims "as amended" are not at issue. The claims as of 1 July 2008 are the only ones appealable.

The Examiner has pointed to specific sections of Bradford as disclosing these recited steps (See Table 1). Appellants have merely concluded that the recited steps are not present in Bradford. Appellants have not shown any supposed errors in the Examiner's reasoning.

Appellants argue:

"Bradford does not teach how to modify the OCR engine to achieve a high confidence level" (Appeal Brief, Page 27, Paragraph 6).

Examiner's response:

Claim 1 does not claim "modify[ing] the OCR engine to achieve a high confidence level."

Appellants argue:

"Appellant takes different algorithms that define different descriptors and access the algorithm to find the descriptor with the descriptors with the highest level of robustness" (Appeal Brief, Page 28, Paragraph 1).

Examiner's response:

Claim 1 does not recite "tak[ing] different algorithms that define different descriptors and access the algorithm to find the descriptor with the descriptors with the highest level of robustness."

Appellants argue:

"The problem that Appellant is solving is the problem of finding robust algorithms for determinations of further of a printed text block that are invariant with regard to a multitasks of defects and imperfectness of the printed text block. The problem that Bradford solves is the problem of finding a most plausible identify of a given character providing that there are multiple algorithms designed to determine and identify" (Appeal Brief, Page 28, Paragraph 2).

Examiner's response:

The problem to be solved is not pertinent to an anticipation rejection under 35 USC § 102(b).

35 USC § 103(a) Bradford in view of Gatto

Appellants argue:

"Gatto does not disclose how to use image filters to access the robustness of various
image characterizing descriptors" (Appeal Brief, Page 30, Paragraph 2).

Examiner's response:

Claims 2-6, 10, and 11 do not recite "us[ing] image filters to access the robustness of
various image characterizing descriptors."

Appellants argue:

"Notwithstanding the foregoing, the Examiner is also required to explain how and why
one having ordinary skill in the art would have been led to modify an applied reference and/or
combine applied references to arrive at the claimed invention" (Appeal Brief, Page 30, Paragraph
3).

Examiner's response:

Gatto shows the use of a plurality of filters as shown in Figure 8. These filters can
correct problems such as skew **41**, pixel errors **42**, black sides **43**, sampling **53**, and dither **54**.
The Examiner has suggested adding the use of the various filters to the teachings of Bradford
(Office Action, Paper 20081027, Paragraph 30). The Examiner also stated that the addition of
the use of the filters would provide images that can be operated on by the algorithms more easily
(Id.).

Additionally, the part of the invention of Bradford being modified and the parts of Gatto relied upon both pertain to the scanning arts. As they pertain to the same art, one of ordinary skill in the art would reasonably look to combine the teachings of both references in order produce a superior practice to that taught either reference alone.

As the filters would be used in the same manner in the combination as they were in Gatto, the result would be predictable.

35 USC § 103(a) Bradford and Gatto in view of Montgomery

Appellants argue:

"The art cited by the Examiner does not disclose or anticipate steps B, C, D, E, F, and G of claim 1 as amended and those claims dependent thereon" (Appeal Brief, Page 31, Paragraph 2).

Examiner's response:

The claims "as amended" are not at issue. The claims as of 1 July 2008 are the only ones appealable.

The Examiner notes that claims 12-16 and 18-20 are not dependent on claim 1.

The Examiner notes that the matter of anticipation of one claim with a given reference does not preclude other claims from being obvious over that reference and two other references. This is especially true when the other claims are not dependent on the first claim.

The Examiner notes that Appellants have not pointed to any limitation of independent claim 12 as not being shown by the combination of references used. Applicants have not alleged any particular error in the rejection of claims 12-16 and 18-20 under 35 USC § 103(a)

This argument is merely a conclusion that is not supported by any evidence.

Moreover, a rejection under 35 USC § 103(a) is based on obviousness not anticipation.

Claim Interpretation and the Prior Art

Appellants have not successfully rebutted the Examiner's prema facie case. Addtionally, the Examiner provides Table 1 and the following discussion of the claim language and the prior art.

First, the Examiner addresses steps f) and g) of claim 1, which have been rejected under 35 USC § 112 2nd paragraph as being indefinite. The Examiner's reasoning for these rejections has been provided above. The Examiner's best understanding of steps f) and g) is that in step f) the data stored as an indicia and the data scanned in from the content area of the printed material are analyzed and in step g) a determination of how well the two pieces of data agree is made.

Bradford shows, in the sections applied, that the scanned in data is compared to the known data to arrive at "output indicators" which tell whether there was an agreement for each character (C 9, LL 44-55).

Next, the Examiner addresses steps b) – e) of claim 1. These steps require using a set of algorithms which when used compute information that characterizes the scanned data, determining an estimate of accuracy of each algorithm, and selecting, based on the estimates, which results to store in an indicia.

Bradford shows, in the sections applied, that each of the scanning devices has a different algorithm (C 13, LL 24-27). The result of these algorithms is positional data which characterizes the position of the text scanned by that device (C 13, LL 22-24). Each scanner, and thus, each

algorithm has a confidence indication that shows the robustness of the scan based on properly

identifying known data (C 9, LL 44-55). Based on the confidence indication ("DEVICES IN

AGREEMENT," Figure 3) and the positional data (C 13, LL 22-24), selecting an optimum

alignment (C 13, LL 24-27). This data is stored in memory **114** (C 13, LL 22-24), and is used to

determine which of the devices to trust when scanning a particular character ("DEVICES WITH

FLAGS SET," Figure 3).

Finally, step a) of claim 1 has not been alleged to not be present in the applied prior art.

Therefore, the Examiner takes this as agreement by Appellants that the step is present. Thus, this

step is not at issue in the appeal.

Dependent claims 2-6, 10, and 11, essentially require the addition of filtering of the

scanned image. Gatto shows a series of filters to be used in a scanning device. Appellants'

intent in filtering is to deface or degrade the image. Gatto's intent is to improve the image.

However, one of ordinary skill in the art would recognize that the same filter used to correct an

issue can also be used to create that issue when given a different input. The Examiner provided

examples of this in the preceding Final Office Action (Paper 20081027, Paragraph 49).

Appellants have not argued this assertion.

Miscellaneous

35 USC § 112 1st Paragraph

In the Appeal Brief, Appellants have not challenged the Examiner's position of new

matter under 35 USC § 112 1st paragraph in claims 1-5 and 7-11. Because Appellants have not

challenged the rejection in this appeal, this rejection is **not** before the Board of Patent Appeals

and Interferences ("Board"). Because Appellants have not challenged the rejection, the Board

does **not** have subject matter jurisdiction to review this rejection.

The Examiner finds that the phrases "means for" and "step for" are not present in the

appealed claims. Therefore, there is no invocation of 35 USC § 112 6th paragraph.

The Examiner has not found any lexicographic definitions in the specification as

originally presented. Appellants have not pointed to any definition from their specification.

Therefore the Examiner concludes that there are no lexicographic definitions in the appealed

claims.

Because Appellants have not argued the claims as such, the Examiner concludes there are

no product-by-process claims.

The Examiner also notes that Appellant has included their non-entered after final

amendment in Appendix VIII. As these claims have not been entered they are not considered to

be in the application at this time. Appellant has been notified twice (in the 10 July 2009 Notice

of Defective Appeal Brief and in the Interview on 24 August 2009 with a summary mailed 26

August 2009) that these claims should not be included

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner, Art Unit 3621

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Table 1

Claim 1	Bradford (US 5,805,747)
A method for generating characterizing information including a plurality of descriptors for a selected block of printed material, said method comprising the steps of:	A method for generating **positional data** (C 13, LL 22-24) including **an optimum alignment** (for multiple scan devices, C 13, LL 24-27) for a selected block of **a hard-copy page 101**, said method comprising the steps of:
a) scanning said printed material;	a) scanning (by "Optical Scanning Unit," 102) said **hard-copy page 101**
b) applying a predetermined set of algorithms for computing characterizing information	b) applying **string matching algorithms** (C 13, LL 24-27) for computing **positional data** (C 13, LL 22-24);
c) determining estimates of robustness for each algorithm in said predetermined set of algorithms	c) determining **confidence indicators** (C 9, LL 44-55) for each algorithm in said **string matching algorithms** (C 13, LL 24-27);
d) selecting, as a function of said estimates, a combination of descriptors generated by a corresponding combination of said algorithms as said characterizing information	d) selecting, as a function of **confidence indicators** (C 9, LL 44-55), **an optimum alignment** (C 13, LL 24-27) generated by a corresponding combination of said algorithms as said **positional data** (C 13, LL 22-24)
e) including said characterizing information into a secure indicia;	e) **storing** (C 13, LL 24-27) said **positional data** (C 13, LL 22-24) into a **memory 114**
f) scanning said indicia and said printed block; and	f) scanning said **positional data in the memory** (C 13, LL 22-24) and said printed block (data in memory from the scan is compared to known information for the printed data, C 9, LL 44-55)
g) determining uniqueness of said indicia using information obtained from step f (resulting in "output indicators," Id.).	g) determining **output indicators** (C 9, LL 44-55) of said **positional data in the memory** (C 13, LL 22-24) using information obtained from step f (C 9, LL 44-55).
The Examiner notes that steps f) and g) are subject to rejections under 35 U.S.C. 112 2nd paragraph and therefore, the reference has been applied as the claim is understood by the Examiner.	